

ABSTRACT

A fuel cell system having a water source wherein the water is fed in a controlled manner to a gas stream for cooling the gas stream to a desired temperature. In a preferred embodiment, the water is atomized prior to contacting the gas stream. In a further embodiment, a packing of high surface area material is fed with the cooling water as the gas stream passes through the packing material. By utilizing water already present in the fuel cell power plant, a highly efficient method and system for controlling the temperature of gas streams and O/C ratio in the fuel cell power plant is obtained.